Approximate	Gestation Period	O months	0-8 months	3 months		50 days	63 days	9 months		21 days*		/ months		58.43 days			20-22 months	49-55 days		14-15 months	ST days	***************************************		114 days		11 months			30-40 days		108 days	42 days		22 days	8-12 months	一個 一	5 months bavid Fless	A Baby Wallaby stays with its nother-	35 days* in her pouch-until it can care for itself.	28 days Wallabies are small-sized kangaloos.		10.17 months Fur Seals start life in a group vita many	
Group		11000	Diag	colony	family	,	clowder	hard		flock					Kenner		herd	skulk		herd	herd	11001	gaaale	herd			nerd	ale)		froop	pride		warren		herd	trip	flork Lord		flock	flock		herd	herd
Young		fled along	Kid.	***	NI C	2	Libbon	celf		chick		famus			dad		Egif	cub	dnd	calf	kid	:	BuilsoB	shoat	farrow	piglet	foal (male	filly (female)	Yeel		cup		į.	KITTEN	dnd	whelp	lamb	famount.	cygnet	poult		calf	tios
Fornals			doe				HORSES	buss		hen			Hihd		bitch		W02	Vixen		COW	nanny		goose	WOS			dam	mare		flicr	Honese	hen	doe		COW				pen	hen		COW	
11-10	Male		buck				E G	E o		7000	rooster	Buck	hort		gob			100		Poll	billy	buck	gander				stallion	stud	buck		4 6	, You	buck		Stell	5			dop	cock	geobler	lind	stallion
	Animal		Antelope	-// Bear	Beaver		- Bobcat	Cat	79 Cottle		Chicken		inad.		Bod	Donkey		Haphani	XO.	40.5	Good		95000		No.		Horse		W. Wandarroo	a a a a a a a a a a a a a a a a a a a		Lion	Pobbit		102	Sec.	Sheep			50/01			S. C. Lebra
	Approximate Gestation Period	81 days*	9 months	6-8 months	3 months		50 days	63 days	9 months	4	21 days	7 months	/ monaida		58-63 days	1.2 months		20-22 months	49-55 days	2 1 1 5 moonths	151 days		30 days*		114 days		11 months		30 40 dave	20-40 00/2		108 days	30-32 days		22 days	8-12 months	5 months		**	28 days		10.17 months	11-12 months
	Group	florely	herd	sloth	colony	family		clowder	herd	drove	flock				lonnoy	pace		herd	skulk		herd		flock	gaggle	herd	aloun	herd			froop	dom	pride	Morren			herd	flock	herd		flock		3	herd
200	Young		Bungan	cub	1 1	2112	111	kitten	calf		chick		fawn			Cod	100	calf		dnd	calf	ktd	doslina		shoot	Tarrow	fool	colt (male)	filly (femal			cub	chick	kitten		dnd	wheip	lambkin	leg	cygnet			calt
STATISTICS.	Female				000		Tomate				hen				20e	bitch	enny	COW	vixen		COW	Yuubu	900				dom	mare		doe		lioness	hen	900	aop.	COW		e wa		ben	hen		woo
NAMES OF ANIMONS AND	Male			DUCK	boar			E DE	Tom		cock	rooster	buck	hart	stag	бор		bull	deg		bull	billy.	Buck	50000	boar		a collision	stud		bock	роошет	lion	cock	buck	buck	Poll		Buck		cop		tom	bull
N	i mai		Albahross (Royal)	Antelope	Becr	Beaver		Bobcol	Cat	Callle		Chicken	Tool			Dog	Donkey		Elephons	LOX.	9	Good		60000	Clark	n ,		Horse		Kangaroo			Detrich	Rabbil		10.4	1901	Sheep		Second Contract Contr	Turkey		ghale

# ANIMAL / A Classification of the Animal Kingdom

Scientists classify animals by separating them according to their differences and by grouping them according to their likenesses. Such an arrangement provides a logical way to organize information about animals and to show how animals are related to each other. The classification given below lists some of the major groups of animals and a few of their chief characteristics.

Phylum		Example
Subk Protozoa	ingdom Protozoa (One-celled animals)  The bodies consist of one cell. The animals live alone or in colonies. They grow in fresh water or salt water, in the soil, or in the bodies of other animals. Classes include Mastigophora, Sarcodina, Sporozoa, Ciliata, and Suctoria.	Sarcodina
Subk Porifera (Sponges)	ingdom Parazoa (Many-celled animals without a true digestive cavity)  Body walls consist of two layers of cells. Internal cavities or canals connect with pores in the body wall. Most of these animals grow in colonies and are found in fresh water or in salt water.	Parifera
Subk	ingdom Metazoa (Many-celled animals with true digestive cavities)	
Mesozoa	These are the smallest of the multicelled animals. Their bodies are small, slender, and wormlike. They have a layer of digestive cells on the outside wall of the body. They live as parasites in the bodies of animals without backbones.	Dicyema
Coelenterata (Coelenterates)	The bodies of these animals contain a jellylike material between two layers of cells. The baglike digestive cavity has a single opening. Classes include Scyphozoa (jellyfishes) and Anthozoa (sea anemones and corals).	Scypholog
Ctenophora (Comb jellies)	The bodies are round or almost flat, and contain a jellylike material. The animals live in salt water and swim by means of eight combs (rows of plate-like tissues). The ribbonlike Venus's-girdle is a member of this phylum.	Ctenophora
Platyhelminthes (Flatworms)	These animals have soft, thin, flattened bodies that consist of three layers of cells. Most flatworms live as parasites in other animals. Classes include Turbellaria (free-living flatworms), Trematoda (flukes), and Cestoda (tapeworms).	Turbellaria
Nemertinea or Nemertea (Ribbon worms)	The bodies of these animals are soft, slender, and elastic. They are not divided into segments. Most ribbon worms live in salt water, but a few kinds live in fresh water or on land. None of these animals is a parasite.	Nemertined
Aschelminthes	Most animals of this group have small, slender bodies. They move about and get food by means of cilia. Classes include Rotifera (wheel animalcules or wheel worms), Nematoda (roundworms), and Nematomorpha (hair snakes).	Rotifera
Acanthocephala (Spiny-headed worms)	These animals have flat, rough bodies, and rows of curved spines on the "nead." The young are parasites in arthropods. The adults are parasites in vertebrates. They use their head spines to attach themselves to other animals.	Acanthocephala
Entoprocta	These animals resemble flowers. They have stalklike parts of the body attached to objects or other animals in the water. A calyx (cuplike structure) at the top of the stalk has a single circle of tentacles on top, like flower petals.	Pedicellina
Phoronidea	The bodies of these marine animals are wormlike, but are not divided into segments. They have a pair of "arms" that pear tentacles. The animals live in mud, encased in a membranous tube formed from a body secretion.	Phoronidea

These are plantlike water animals that usually grow in colonies. They cannot

move about. The colonies form crusts on rocks, shells, and water plants.

Each animal has tentacles around the mouth that sweep food into the mouth.

Ectoprocta

or Bryozoa

(Moss animals)

## Subkingdom Metaxoa (continued)

Mammalia (Mammals) Williastrations by Carl Yates	esvA (sbria)	Reptilia (Reptiles)	pidingmA (snoidingmA)	ostelichthyes (sony fishes)	Chondrichthyes (Cartilaginous fishes)	Agnuting A bho system old (centrely old (centrely old )
	ses	Clas				
	ntales)	(Verteb	(Tunicates)	(Lancelets)		
	piaia	JetteV	Tunicala	Cephalochordata		
					phylaplkyla-	ns
	(eautour a ofni	rd develops	rates, the notochor	e animals have at soi body, In the verteb ts classify human bei	ent stroggus tont	csetob c
gujetobuensta						
The state of the s	to front to burn	They live in	side of the body.	milke marine animals ny gili slits on each os resemble those of	the mouth and ma	richordata (smorms)
bodovobeca						
WOOD	"head"	cles on the	groove, The renta	nals have wormlike ginents by a deep living the animal a "	Alded lifto two se	prodqone ( (zmrow brg
atamas bonina3						
A	Classes (brittle	DebioruinqC	dea (starfishes), (	these marine anima (sea lilles), Asteroi (sea vrchins), and Ho	include Crinoidea	inodermata .coderma
Chaelognotha	ona a	of ocean g	an important part	g about They are o	nown (1) head	cowworms)
	fonitalb a	early ofri b	ebivib seibod fner	rye slender, transpar	These animals ha	resoluatha
ptsezni	(statedo	Crustacea (I	Chnida (spiders), C	ave a head, thorax, Classes include Ara Chilopoda (centip	of jointed legs, (	pbogosti; so sbegosti; (slamina betoot-:
Polychaela	s include leeches).	out, Classe Hirudinea (	(earlihworms), and	ove long bodles dividence to the comment of the com	are covered with	nnelida egmented worms)
pabioluquin4	to albmir	ackward. As	ward or pulled be	mais have sausage-s d can be pushed for mud or sand, and	"head," The hea	aphioluqu
Echioroldea	ive in U- w water.	dig and i	oscis (snout). They shelter between ro	ese marine animals of trough-shaped prob n mud or sand, or find	groot a fonds shaped burrows in	pabiotuli
Sipunculoided	d. When	ke a peanu	ther so they look li	ave slender, gourd-s ashore, where they ull their bodies tage	live along they p	punculoidea sanut worms)
Gastropoda	(univelve	astropoda	Classes judinde G	ot these animals are retes a limy shelt. ' limpets) and Pelecy	that usually seci	ollusks) Sallusks)
Brachiopoda	si , blugni	the genus L	ser of this phylum,	imals have two-piece shy stalks. One memb e scientists to be the	by means of fles	rachiopoda amp shells)

set but !

## ANIMAL/Study Aids

#### Related Articles in WORLD BOOK include:

#### GENERAL ANIMAL STUDY ARTICLES

See ZOOLOGY with its list of Related Articles. See also: Migration (Migration Gnotobiotics Adaptation Growth of Animals) Biology

Ornithology Comparative Habitat Psychology Hibernation Reproduction Sleep (Among Ecology Hunger

Animals) Environment Instinct Sociobiology Life Ethology Marine Biology Territoriality

Evolution Some Groups of Animals Arthropod Metazoan Ruminant

Omnivore Sponge Carnivore Cold-Blooded Oviparous Vertebrate Animal Viviparous Animal

Animal Fauna Parasite Primate Warm-Blooded Herbivore Rotifer Animal Invertebrate

Mammal

Hydra

Hair Snake

Abalone

Chiton

Cockle

Conch

Barnacle

Blue Crab

Clam

Argonaut

ARTICLES ON INDIVIDUAL ANIMALS

WORLD BOOK has hundreds of separate articles on specific animals. Many of these are listed below, beginning with the simplest protozoans and continuing with the more advanced groups.

#### **PROTOZOANS**

Nummulite Protozoan Ameba Euglena Paramecium Trypanosome

COELENTERATES

Sea Anemone Coelenterate Jellyfish Coral Portuguese Man-of-War Sea Fan

WORMS Hookworm Ribbon Worm Earthworm Eclworm Lecch Roundworm Lobworm Tapeworm Filaria Nematoda Trichina Flatworm Pinworm Vinegar Eel Fluke

> Planarian **ECHINODERMS**

Sca Cucumber Echinoderm Sand Dollar

Cowric

Geoduck

Limpet

Mollusk

Mussel

Sca Lily

MOLLUSKS

Nautilus Cuttlefish

Octobus Oyster Pcriwinkle

Squid Scallop Whelk

Worm

Sca Urchin

Shipworm

Starfish

Slug

Snail

Lobster

Sarimp

CRUSTACEANS

Crustacean

Fiddler Crab Hermit Crab

Water Flea Copepod Krill Wood Louse Crab Crayfish ARACHNIDS

Spider Arachnid Chigger Tarantula Black Widow Daddy Longlegs Brown Recluse Mite Tick Cattle Tick Scorpion

Trap-Door Spider INSECTS For a list of separate articles on insects, see the Related Articles at the end of the Insect article.

FISH

Amphibian

Hellbender

Bullfrog

Anthrax

Distemper

Antennae

Gelatin

Frog

For a list of separate articles on fishes, see the Relative Articles at the end of the Fish article.

AMPHIBIANS

Surinam Tes Midwife Toad Tadpolc Mud Puppy Toad Newt Tree Frog Salamander

REPTILES

See LIZARD and SNAKE, with their lists of Relate Articles. See also the following articles: Tortoi Alligator Reptile Turtle; Terrapin Crocodile Gavial

BIRDS

For a list of separate articles on birds, see the Related Articles at the end of the BIRD article.

MAMMALS See the following general articles and the lists Related Articles at the ends of these articles:

Rodent ... Cetacean Insectivore Antelope Sheep Sirenia Ungulati Weasel Mammal Deer Ape Marsupial Bat Dog Monkey Bear Edentate

Camel Rabbit Goat Raccoon Cat l-log Cattle Horse

EXTINCT AND PREHISTORIC ANIMALS

Weasel

Whale

Spavin

Tick Feve

Extinct Animal Archaeopteryx Passenger Pigeon Fossil Aurochs Prehistoric Animal Coelacanth Ground Sloth Heath Hen Pterodactyl Diatryma Saber-Toothed Co. Dinosaur Hesperornis Tarpan Dodo Mammoth Mastodon Trilobite Elephant Bird

Animal Diseases

Glanders Bang's Disease Heaves Lumpy Jaw

Tularemi Veterina Foot-and-Mouth Mange Medic Rabics Disease Yellows 3 Fungus Discase Rinderpest Animal Parts and Organs

Hand (Animal Hanco) Blood (The Blood of Animals) Hoof

Brain (The Brains of Animals; Horn

Scale illustration) Coclom Tail Ear (picture: Inner Ears of Teeth (Teeth of Animals)

Other Animals) Tentacle Eye (The Eyes of Animals) Gill Tongue Gizzard

Animal Products

Glue

Mother-of-Pear Ambergris Beeswax Glycerol Musk Parchment Blubber Guano Pearl Bristle Honcy Pemmican Insulin Perfume (Animi

Cascin Cashmere Isinglass Substances) Caviar Ivory Shell Lanolin Cochincal

Mohair

Lard Silk Cod-Liver Oil Leather Spermaceti Detergent and Soap Manure Stearin Meat Tallow Egg Wax Feather Milk Fur Wool

176

Animal Life Maps

#### ANIMAL

See the animal life maps with the following articles: rica Australia North America South America Europe itarctica

### ORGANIZATIONS

dubon Society, Na-Society for the Prevention of Cruelty to Animals h and Wildlife Service

#### Science Projects

The following articles contain special World Book ence Projects useful to animal study. Microscope ogy edity Zoology

Skeleton

## OTHER RELATED ARTICLES

-mal Worship Conscrvation Palcontology narium Drug (Sources) Pct <sub>egi</sub>enesis Pheromone Embryo logical Clock Farm and Protective Farming Coloration ome Game Safari :::ics Germ Cell Seashore eding Livestock Wildlife diffication, Metaniorphosis Conscrvation entific Nature Study Zoo

#### Outline

Mads of Animals Tame Animals and Wild Animals Land Animals and Water Animals

:a

tional

Animals With the Same Number of Legs Warm-Blooded and Cold-Blooded Animals 4. Scientific Classification

importance of Animals Animals That Help Man Animals That Harm Man Animals That Man Changes How Man Protects Animals itre Animals Live Animals of the Mountains

Animals of the Grasslands
Animals of the Temperate Forests
Animals of the Tropical Forests Animals of the Deserts Animals of the Polar Regions

Animals of the Oceans gs of Life Animal Defenses

Animals and Their Young animal Homes Laimals That Live Together Animal Travelers

inimals and Climate al Bodies

C. How Animals Breathe ⊞ow Animals D. How Animals Reproduce Move About Yow Animals Eat E. Animal Senses Resification of the Animal Kingdom

#### Questions the largest animal of all?

Froups of animals are warm-blooded? it scientists classify the many kinds of animals? two ways in which animals help plants? man protect many wild animals? the short cars and tail of the arctic fox help the cold?

The difference between protective coloration

erive resemblance? sea horses care for their young? simal is the champion migrator? How far does Gravel each year?

& baleen whales called "filter feeders"?

**Books for Very Young Readers** 

FREEDMAN, RUSSELL. Hanging On: How Animals Carry Their Young, Holiday House, 1977. KNIGHT, DAVID C. Dinosaur Days. McGraw, 1977.

MORRIS, DEAN. Animals That Burrow. Macdonald-Raintree, 1977. Endangered Animals. 1977. PRESCOTT, ERNEST. Creatures That Help Each Other. Watts,

1976. SIMON, SEYMOUR. Animals in Your Neighborhood. Walker, 1976.

## Books for Young Readers

ANGELL, MADELINE. America's Best Loved Wild Animals. Bobbs, 1975. Berger, Gilda and Melvin. Fitting In: Animals in Their

Habitats. Coward, 1976. COHEN, DANIEL. Animal Territories. Hasting House, 1975. Cooper, Gale. Inside Animals. Little, Brown, 1977. COSGROVE, MARGARET L. Messages and Voices: The Com-

munication of Animals. Dodd, 1974. Wintertime for Animals. 1975.

DEAN, ANABEL. How Animals Communicate. Simon & Schuster, 1977. FENTEN, D. X. Strange Differences: Clarifying Confusion Between "Cousins" of the Animal Kingdom. Putnam, 1975.

FOGDEN, MICHAEL and PATRICIA. Animals and Their Colors. Crown, 1974. FREEDMAN, RUSSELL. Growing Up Wild: How Young Animals Survive. Holiday House, 1975. Animal Fathers. 1976.

HARRIS, JOHN, and PAHL, ALETA. Endangered Predators. Doubleday, 1976.

HUTCHINS, Ross E. How Animals Survive. Parents' Magazinc Press, 1974.

LAYCOCK, GEORGE. Wild Travelers: The Story of Animal Migration. Scholastic Book Services, 1974. People and Other Mammals. Doubleday, 1975.
MILNE, LORUS J., and others. The Secret Life of Animals:

Murie, Olaus J. A Field Guide to Animal Tracks. 2nd ed. Houghton, 1975. Pettit, Throdore S. Wildlife at Night. Putnam, 1976. SHUTTLESWORTH, DOROTHY E. How Wild Animals Fight.

Pioneering Discoveries in Animal Behavior. Dutton, 1975.

Doubleday, 1976. SIMON, SEYMOUR. Life in the Dark: How Animals Survive at

Night. Watts, 1974. WATERS, JOHN F. Creatures of Darkness. Walker, 1975. WINTER, RUTH. Scent Talk Among Animals. Lippincott,

**Books for Older Readers** 

1977.

BORLAND, HAL G. The History of Wildlife in America. National Wildlife Federation, 1975. BURT, WILLIAM H. A Field Guide to the Mammals: Field

Marks of All North American Species Found North of Mexico. 3rd cd. Houghton, 1976.

BURTON, MAURICE and ROBERT. Inside the Animal World: An Encyclopedia of Animal Behavior. Harper, 1977. DUPLAIX, NICOLE, and SIMON, NOEL. World Guide to Mam-

mals. Crown, 1977. Line, Les, and Ricciuti, E. R., eds. The Audubon Society Book of Wild Animals. Abrams, 1977.

MARTIN, RICHARD M. Mammals of the Oceans. Putnam, 1977.

Our Magnificent Wildlife: How to Enjoy and Preserve It. Norton, 1975. PRINCE, JACK H. Language of the Animal World. Nelson,

ROOTS, CLIVE. Animal Invaders. David & Charles, 1976. SMYTHE, REGINALD H. Vision in the Animal World. St.

Martin's, 1975. Street, Philip. Animal Migration and Navigation. Scribner

1976. Walker, Ernest P. Mammals of the World. 2 vols. 3rd cd. Johns Hopkins Univ. Press, 1975.